

IN THE CLAIMS:

Amend the claims as follows:

Claims 1-2. (Canceled)

3. (Previously Presented) The drug conjugate of claim 28, wherein the compound is adapted to be transported by a PepT1 protein or a PepT2 protein.

Claims 4-5. (Canceled)

6. (Currently Amended) The drug conjugate of claim 28, wherein the compound comprises a serine, aspartate or glutamate residue as ~~[[a]]the~~ C-terminal residue.

Claims 7-9. (Canceled)

10. (Currently Amended) The drug conjugate of claim ~~[[9]]28~~, wherein the functional group of R₄ includes amine; amide; ester; acid; carboxylic acid; alcohol; ether; thiol; thioether; and aryl, or aromatic compound.

Claim 11. (Canceled)

12. (Currently Amended) The drug conjugate of claim ~~[[8]]28~~, wherein R⁴ comprises an alcohol or a carboxylic acid group.

13. (Currently Amended) The drug conjugate of claim ~~[[8]]28~~, wherein R⁴ comprises an alkyl chain attached to an alcohol or a carboxylic acid group.

14. (Currently Amended) The drug conjugate of ~~claim~~claims 13, wherein the alkyl group or alkyl chain comprises a C₁-C₂₀ chain.

15. (Currently Amended) The drug conjugate of claim ~~[[8]]28~~, wherein R⁴ is an amino acid side chain group comprising an alcohol or a carboxylic acid group.

16. (Currently Amended) The drug conjugate of claim [[8]]28, wherein R⁴ is a side chain group of any amino acid residue.

17. (Currently Amended) The drug conjugate of claim [[8]]28, wherein R⁴ is a side chain group of an amino acid ~~side chain group~~ independently selected from a group consisting of serine; threonine; glutamic acid; aspartic acid; and tyrosine.

18. (Currently Amended) The drug conjugate of claim [[8]]28, wherein R⁴ is a side chain group of serine; glutamic acid; or aspartic acid.

19. (Currently Amended) The drug conjugate of claim [[8]]28, wherein R⁴ comprises a spacer which is constructed and arranged to distance the drug from the thiopeptide when bound thereto.

20. (Previously Presented) The drug conjugate of claim 19, wherein the spacer comprises an alkyl chain, or an alkyl chain incorporating ether, amino, ester, amide or carbonyl groups, with a terminal group for attachment to the thiopeptide compound and the drug.

21. (Previously Presented) The drug conjugate of claim 19, wherein the spacer comprises $[-CH_2-]_n$, wherein the value of n is an integer of at least 1.

22. (Previously Presented) The drug conjugate of claim 19, wherein the spacer comprises $[-CH_2-O-CH_2-]_n$, wherein n is an integer of at least one.

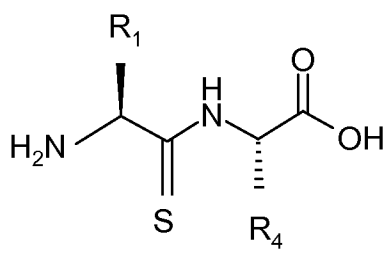
23. (Currently Amended) The drug conjugate of claim [[8]]28, wherein R¹ comprises a side chain group of any amino acid residue.

24. (Currently Amended) The drug conjugate of claim 23, wherein the amino acid side chain group of R¹ is independently selected from a group consisting of (i)

[[H]]hydrogen (glycine); (ii) [[Me]]methyl (alanine); (iii) CH₂Ph (phenylalanine); (iv) CHMe₂ (valine); (v) CH₂OH (serine); (vi) CH₂SH (cysteine); (vii) CH₂CO₂H (aspartate); (viii) CH₂CONH₂ (asparagine); and (ix) (CH₂)₄NH₂ (lysine).

Claims 25-27. (Canceled)

28. (Currently Amended) A drug conjugate comprising a drug molecule covalently bonded to a thiodipeptide, the thiodipeptide having the formula



wherein the drug molecule is covalently bonded to a functional group of R₄,

wherein R₄ is independently selected from a group consisting of:

an N-alkyl group;

an alkoxy group;

an alkyl chain attached to a functional group; and

a side chain group of an amino acid residue,

wherein R_1 is independently selected from a group consisting of:

a hydrogen;

a linear or branched alkyl group;

an alkyl chain attached to other functional groups; and

a side chain group of an amino acid residue

~~, which drug is linked to a compound or a drug carrier, said compound comprising a thiopeptide, or derivative or analogue thereof, the thiopeptide comprising a C-terminal carboxylic acid group, and a functional group for attachment to a drug, characterised in that the compound is adapted to carry or transport a drug, and said carrier comprising a thiopeptide, or derivative or analogue thereof .~~

29. (Currently Amended) A drug conjugate according to claim 28, wherein covalent attachment of the drug molecule to the thiopeptide ~~compound or drug carrier~~ is by means of an ester linkage, ether linkage or an amide linkage.

Claim 30. (Canceled)

31. (Currently Amended) A drug conjugate according to claim 28, wherein the ~~compound or the drug carrier~~ thiopeptide is capable of being released or detached from the drug molecule.

32. (Previously Presented) A drug conjugate according to claim 28, in the form of a medicament.

Claims 33-39. (Canceled)

40. (Currently Amended) The drug conjugate of claim 28 wherein the drug molecule is selected from the group consisting of an antibiotic~~antibiotics~~, an anticancer drug, an antihistamine, an antihypertensive, an anti-inflammatory, an antimalarial, an antiviral, a beta blocker, a bronchodilator, a cholesterol lowering agent, a Central Nervous System (CNS) drug, a sedative, and a steroid.

41. (Previously Presented) The drug conjugate of claim 28 wherein the drug is selected from the group consisting of oxazepam, lorazepam and temazepam.

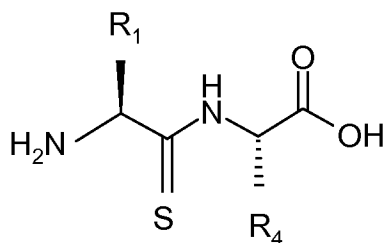
42. (New) The drug conjugate of claim 28 wherein the N-terminal residue of the thiodipeptide is an L-isomer.

43. (New) The drug conjugate of claim 28 wherein the C-terminal residue of the thiodipeptide is an L-isomer.

44. (New) The drug conjugate of claim 28 wherein the N- and C- terminal residues of the thiodipeptide are L-isomers.

45. (New) A drug conjugate comprising a drug molecule covalently bonded to a thiodipeptide, the thiodipeptide having an N-terminal and a C-terminal residue, wherein the thiodipeptide comprises a carboxylic acid group at the C-terminal and wherein the drug molecule is attached as a side chain of the C-terminal residue.

46. (New) A drug conjugate molecule, being a product of the reaction of a functional group of a thiodipeptide with a drug molecule, wherein the thiodipeptide has the formula:



in which R_4 comprises the functional group that reacts with the drug molecule to covalently attach the drug molecule to the thiodipeptide, wherein R^4 is independently selected from a group consisting of:

- an N-alkyl group;
- an alkoxy group;

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an alkyl chain attached to a functional group; and
a side chain group of an amino acid residue,
wherein R₁ is independently selected from a group consisting of:
a hydrogen;
a linear or branched alkyl group;
an alkyl chain attached to other functional groups; and
a side chain group of an amino acid residue.